

1 What is claimed is:

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3 1. An electrical machine, in particular a generator for motor vehicles, with a
4 rotatably supported rotor (27), whereby at least one bearing (24) serves to
5 support the rotor (27) in a hub (21), and an axially-acting spring force of a spring
6 element (47) acts on the bearing (24), the spring element bearing against the hub
7 (21) with spring force,
8 wherein the spring element (47) is a disc spring and is capable of functioning
9 back and forth across a "flat" position of the spring element (47).

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11 2. The electrical machine as recited in Claim 1,
12 wherein the spring element (47), in an outer region, bears against an outer ring
13 (44) of a rolling bearing (24) and, in an inner region, against a hub projection
14 (30).

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16 3. The electrical machine as recited in Claim 2,
17 wherein the hub projection (30) is basically annular in shape and has a conical
18 spring-support surface (35) that declines outwardly.

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20 4. The electrical machine as recited in one of the preceding Claims,
21 wherein the spring element (47) configured as a disc spring essentially has the
22 shape of a frustoconical shell.

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24 5. The electrical machine as recited in one of the preceding Claims,
25 wherein a spacer (56) is located in the force-transfer direction between the
26 bearing (24) and the spring element (47).

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28 6. The electrical machine as recited in one of the preceding Claims,
29 wherein a spacer (56) is located in the force-transfer direction between the spring
30 element (47) and the hub (21).

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- 1 7. The electrical machine as recited in Claim 5 or 6,
- 2 wherein the spacer (56) is a ring secured to the spring element (47).
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